



# Amending Alexandria's Environmental Management Ordinance

Project Kick-Off Presentation  
to the Alexandria Environmental  
Policy Commission

September 22, 2003





# Presentation Overview

- Existing Ordinance
- State Mandated Regulatory Changes
- Options Under Consideration
- Stream Mapping Project
- Next Steps and Discussion

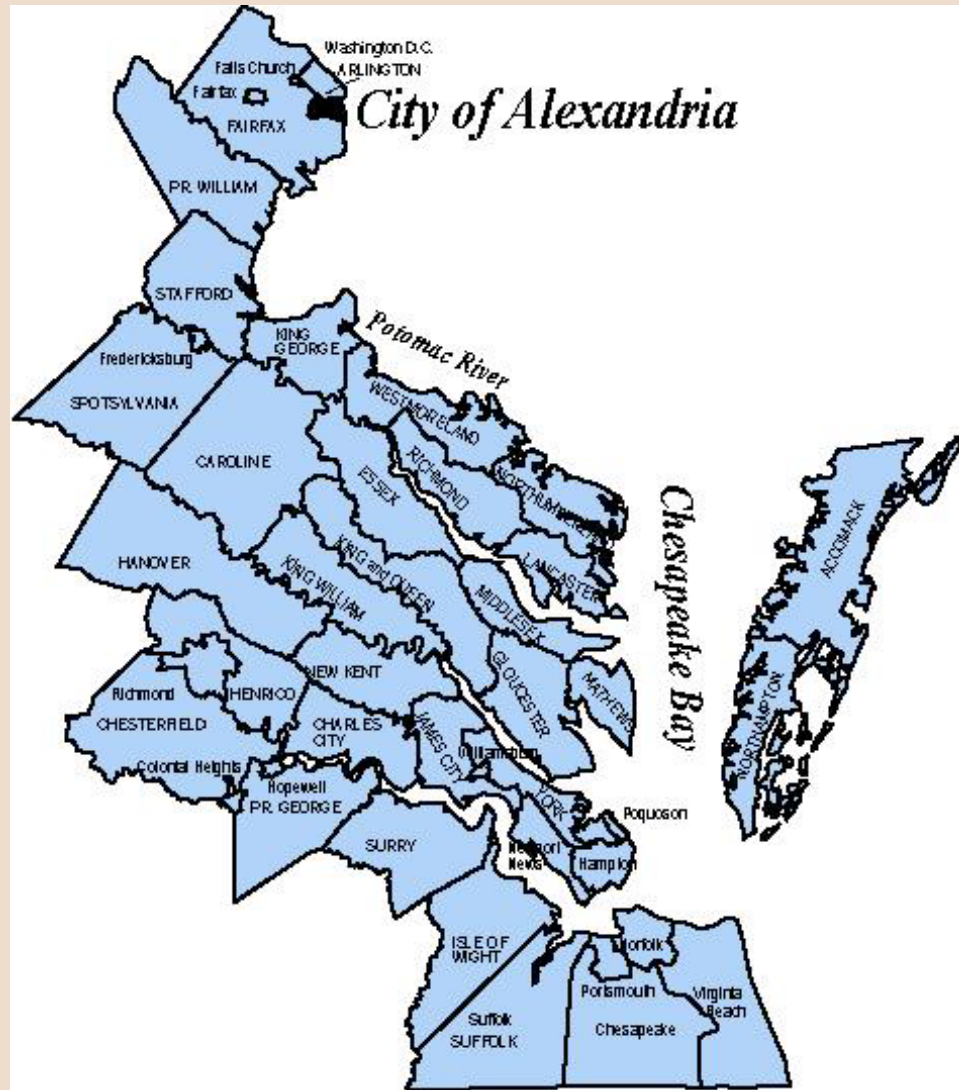
*We are not alone in this process – 83 other local governments are grappling with the same issues.*



# A Brief Context

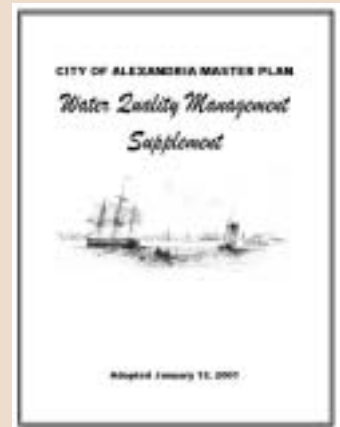
- Chesapeake Bay Preservation Act adopted in 1988.
- Applies only to “Tidewater” localities.
- A holistic land management program, not just a water quality program.
- Three phases: map and ordinance; comprehensive plan; and ongoing compliance.

# Tidewater Virginia



# Alexandria's Existing Program

- Article XIII and official map adopted in 1992.
  - Resource Protection Areas
  - Resource Management Areas
- Water Quality Management Supplement adopted in 2001.

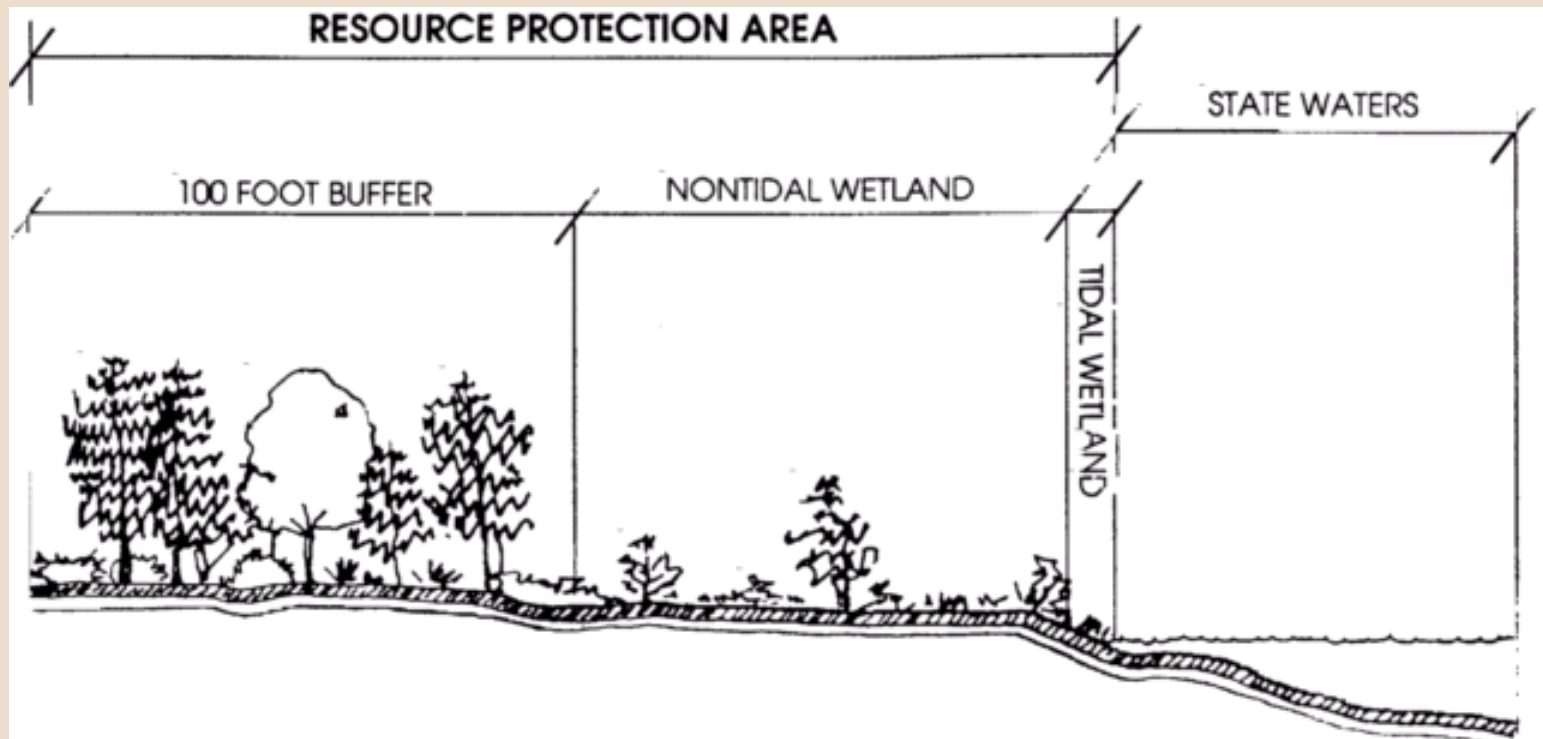




# Resource Protection Areas

- Sensitive lands with intrinsic water quality value. Currently includes:
  - Tidal wetlands;
  - Tidal shores;
  - Non-tidal wetlands connected by surface flow and contiguous to tributary streams; and,
  - A 100-foot buffer area around all these components plus “tributary streams.”
- Represents approximately 20 miles of shoreline and tributary streams.

# Resource Protection Areas





# Importance of Buffer Areas

Filtering  
Runoff  
Nutrients,  
Sediments,  
and Toxics are  
Trapped or  
Settle

Nutrient  
Uptake  
By Trees and  
Microbes in  
Soil

Canopy and  
Shade  
Moderates Stream  
Temperature

Leaf Food

Fish and  
Wildlife Habitat





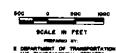


REVISIONS					
REV. NO.	APPROVED	DATE	BY	SECTION	APPROVAL DATE
1					
2					
3					
4					

ADOPTED: 1-28-92  
ORDINANCE NO. 2558  
EFFECTIVE: 1-28-92

JANUARY 28, 1992  
BY: *Robert S. Jurek*  
MAYOR  
DIRECTOR OF TRANSPORTATION & ENVIRONMENTAL SERVICES

# City of Alexandria, Virginia CHESAPEAKE BAY PRESERVATION AREAS



**RESOURCE PROTECTION AREA (RPA) LEGEND**

TS TRIBUTARY STREAM  
LK LAKE  
WL OTHER WETLAND  
100' BUFFER AREA

**NOTE**  
THOSE PORTIONS OF THE CITY ARE INCLUDED IN THE RESOURCE PROTECTION AREA (RPA) WHICH ARE DESIGNATED AS SUCH BY THE CITY OF ALEXANDRIA, VIRGINIA.  
THOSE PORTIONS OF THE RPA WHICH ARE NOT INCLUDED IN THE CITY ARE NOT INCLUDED IN THE RPA.  
-BY OF THE RESOURCE PROTECTION AREA.

# Existing Alexandria RPA Map



# Resource Management Areas

- Land that has the potential for causing water quality degradation if improperly developed.
- Uses must meet performance criteria to protect water quality.
  - Pollutant removal requirements.
  - Minimize impervious surfaces.
  - Maximize vegetation.
  - Minimize disturbance area.

# Examples of Measures to Meet Performance Criteria





# Exemptions, Exceptions, and Non-Conforming Uses

- Recognizes unique situations.
- Typically, RPA exceptions require a Water Quality Impact Assessment.
- Exceptions are currently approved by the Director of T&ES through an administrative process.



# Beyond Compliance in 1992

- Opted for a jurisdiction-wide RMA.
- No Intensely Developed Areas (IDA).
- Water Quality Volume (WQV) treatment requirement.

# State Mandated Changes



- Protect all “water bodies with perennial flow.”
- Map is guidance; perennial flow must be field verified.
- Exceptions to RPA buffer requirements must be through a public process.



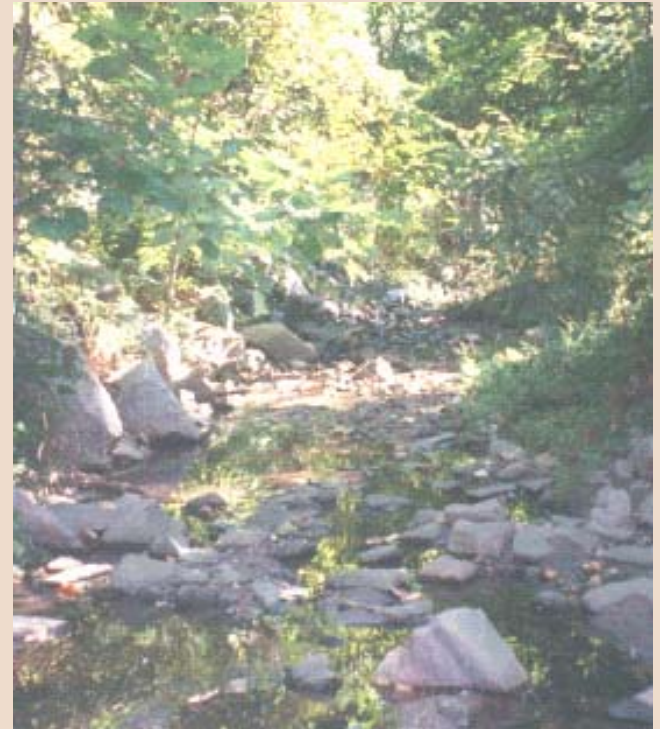
# Perennial Stream Issues

- Should Alexandria map streams ahead of time?
  - Make citizens aware of impacts.
  - A tool to help the City assess the impacts of additional protection options.
- What protocol to use?
  - Fairfax County has developed a CBLAD-endorsed protocol.



# Stream Mapping Project

- The City has hired AMEC/Baker to perform stream mapping.
- Categorize streams as perennial, intermittent, or ephemeral.
- Will use Alexandria field-tested version of existing protocols.






# Stream Types and Attributes

	Hydrology (Flow)	Geomorphology (Structure)	Biology
Perennial	Year-round (except drought)	Well-Defined	Supports
Intermittent	Part of year	Less well-defined	Scarce; adapted
Ephemeral	During and shortly after rainfall	Poorly defined / low points	Not aquatic based

# Buffer Exception Issues

- Broad discretion in how to organize public review.
- Options for Alexandria:
  - Planning Commission
  - EPC
  - New Board
- Goal to balance efficiency with available expertise.
- City Council retains final say.





# **Other Possible Changes to Article XIII**

Increase Compliance Flexibility  
Enhance Environmental Protection  
Improve Enforcement



# Increase Compliance Flexibility

- Provide flexibility to achieve water quality improvements on or off-site.
- Preference toward treatment or land use management on-site.
- Tool box-approach:
  - Buffer enhancements.
  - Stream restoration.
  - Alexandria Water Quality Improvement Fund.



# Enhance Environmental Protection

- Regulations allow local governments to protect other sensitive land features.
- Features to consider:
  - Intermittent streams;
  - Floodplains;
  - Other non-tidal wetlands; and,
  - Steep slopes.



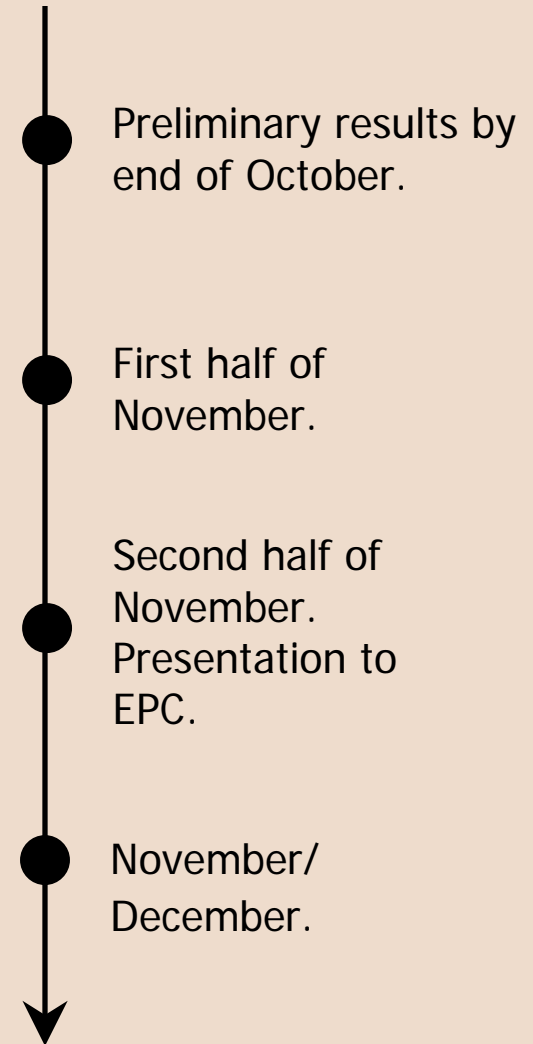
# Improve Enforcement

- Consider incorporating provisions that allow civil penalties (tickets).
  - Similar program for Erosion and Sediment Control in Roanoke has been extremely effective.
- Consider strengthening the City's BMP maintenance requirements.



# Next Steps

- Complete field mapping of streams.
- Assess the impacts of additional protection options.
- Develop recommendations for additional stakeholder input.
- Planning Commission, and City Council work sessions and approval.





# Questions and Discussion